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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,053	11/18/2003	Bruce G. Hazelzet	BUR920020085US1	1052
24241	7590	08/16/2006	EXAMINER	
IBM MICROELECTRONICS INTELLECTUAL PROPERTY LAW 1000 RIVER STREET 972 E ESSEX JUNCTION, VT 05452			TRAN, MICHAEL THANH	
			ART UNIT	PAPER NUMBER
			2827	
DATE MAILED: 08/16/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,053

Applicant(s)

HAZELZET ET AL.

Examiner

Michael t. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-10 and 12-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4,9,10 and 12-14 is/are allowed.
- 6) ☒ Claim(s) 6-8,15 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


MICHAEL TRAN
PRIMARY EXAMINER

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In response to the Communications dated June 12, 2006, claims 1, 2, 4, 6-10 and 12-16 are active in this application as a result of the cancellation of claims 3, 5 and 11.

Claim Objections

2. It appears that the word –and—should be inserted after the semicolon, last occurrence.

Claim Rejections – 35 U.S.C. § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 6-8 are rejected under 35 U.S.C 102(e) as being anticipated by Wong

et al. [U.S. Patent #6,414,868].

With respect to claim 6, Wong et al. disclose, in figures 2, 3 and 5, a memory system comprising: a plurality of DRAMs [1002] having circuits to accept non-inverted input signals [A13, RAS and CAS] and inverted input signals [RAS and CAS via 2003]; and a memory controller [2000] which can drive either non-inverted or inverted signals to the DRAMs using a programmable pin [see figures]. It is interpreted that the pins are programmable since they are able to receive the applied signals whenever they are active.

With respect to claim 7, Wong et al. disclose, in figures 2, 3 and 5, that the memory system contains a memory controller [2000] and that it is understood that the memory controller “operates” when it is being activated – powerup. As for the memory for changing modes after powerup, it is understood that a memory system has a mechanism for turning it on and off. It is further noted that changing a particular mode, for example, an off mode, requires that a signal “off” be sent to one of a plurality of pins.

With respect to claim 8, Wong et al. disclose, in figures 3, and 4c, that the pin is hardwired [coupled] to the DRAMs.

5. Claim 15 is rejected under 35 U.S.C 102(e) as being anticipated by Wong et al. [U.S. Patent #6,414,868].

With respect to claim 15, Wong et al. disclose, in figures 2, 3 and 5, a DIMM comprising: a plurality of DRAMs [1002] with means for operating with non-inverted or inverted signals based on a pre-selected operating mode [*column 1, lines 30-50, states*

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that there exists a plurality of circuits [decoders] and that the control circuit [2000] conveys a plurality of inverted and non-inverted signals [RAS, CAS, A13] these signals are operable in the normal mode, such as, accessing a memory data]; and signal re-drive circuitry [2000] which generates an output in both non-inverted [A13] and inverted polarity signals [RAS and CAS via 2003] from one or more input signals [RAS and CAS]

6. Claim 16 is rejected under 35 U.S.C 102(e) as being anticipated by Wong et al. [U.S. Patent #6,414,868].

With respect to claim 16, Wong et al. disclose, in figures 2, 3 and 5, a computer system with a memory system comprising: memory devices [1002] and re-drive circuitry [2000] external to the said memory devices, said re-drive circuitry having means [pins – see figures] for outputting both non-inverted and inverted polarity signals [A13, RAS and CAS] from one or more input signals [RAS and CAS], and said memory devices designed to operate with non-inverted or inverted signals based on a selected operating mode [accessing a memory data – see column 1, lines 30-55].

Remarks

7. Applicant's arguments filed June 12, 2006 have been fully considered but they are not persuasive.

With respect to the rejection of claims 6-8, Applicant argued that Applicant's memory system "reduces the maximum count of drivers that will be switching in any one

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direction at a time, by utilizing a memory device that is designed to accept inverted inputs when so programmed"; whereas, the Wong et al. reference is "directed to a fundamentally different structure and function". Further, Applicant stated that the Wong et al. reference represents logic required to select a particular bank of memory rather than directing inverting inputs to the memory. These arguments are not germane to the claimed invention, since the claim language does not mention the particular type of limitations as noted by applicant in his remarks. Further, the specification is not the measure of invention. Therefore, limitations contained therein cannot be read into the claims for the purpose of avoiding the prior art. In re Sporck, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687 (1968). Furthermore, unlike the scope of the claims, the preamble of the claims can not be given any patentable weight. Additionally, the Wong et al. reference's selection of a particular bank of memory requires a control logic to direct a particular input signal to that particular bank. See above detailed rejection.

With respect to the rejection of claims 15 and 16, Applicant argued that the Wong et al. reference's use of the control signals are exclusive to the bank selection logic of the bank control circuit rather than for use to propagate to the memory address inputs. However, these arguments are not germane to the claimed invention, since the claim language does not mention the particular type of limitations as noted by applicant in his remarks. Further, the specification is not the measure of invention. Therefore, limitations contained therein cannot be read into the claims for the purpose of avoiding the prior art. In re Sporck, 55 CCPA 743, 386 F.2d 924, 155 USPQ 687 (1968). Furthermore, unlike the scope of the claims, the preamble of the claims can not be

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given any patentable weight. Additionally, the Wong et al. reference's selection of a particular bank of memory requires a control logic to direct a particular input signal to that particular bank. See above detailed rejection.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Allowable Subject Matter

8. Claims 1, 2, 4, 9, 10 and 12-14 are allowable over the prior art of record.

9. The following is an Examiner's statement of reasons for the indication of allowable subject matter: the prior art of records does not show (in addition to the other elements in the claim) the following:

- Programmable pins in the register and the DRAMs to enable operation in either non-inverted or inverted mode, wherein one programmable pin is connected to

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ground to provide one mode and the other programmable pin is connected to Vdd to operate in the other mode.

- Pre-selected DRAMs may operate in the inverted mode with some critical signals remaining in a non-inverted mode; and a memory controller which is programmable to operated in non-inverted mode at power up and to change after it is programmed.

Conclusion

10. When responding to the Office action, Applicants are advised to provide the Examiner with line and page numbers of the application and/or references cited to assist the Examiner in the prosecution of this case.

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Michael T. Tran whose telephone number is (571) 272-1795. The Examiner can normally be reached on Monday-Thursday from 7:30-6:00 P.M.

12. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-1650.



Michael T. Tran
Art Unit 2827
August 9, 2006

MICHAEL TRAN
PRIMER